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16 December 2003

European Patent Office  
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GERMANY

**PCT CHAPTER II**

Re: **Agent's Reference: A2-166PCT**  
**International Application No.: PCT/US03/05915**  
**International Filing Date: 26 February 2003**  
**Priority Date: 26 February 2002**  
**Molex Incorporated**  
**ELECTRICAL CONNECTOR WITH GROUNDED SHUTTER MEMBER**

Sir:

This is the applicants' response under Article 34 to the Written Opinion issued under PCT Rule 66 and mailed on 01 October 2003. Substitute sheets 8 and 9 of the claims 1-10 are attached hereto for consideration and examination by the Examiner. This response is being transmitted by facsimile and a confirmation copy of this letter, along with clean substitute claim sheets in triplicate are being sent to the EPO by Express Mail.

In response to the Written Opinion on the above-identified International Application, the applicants kindly request that the International Preliminary Examining Authority ("IPEA") prepare and issue a second well reasoned written opinion under rule 66 based upon the amended claims and upon the following arguments and remarks.

The applicants have amended the claims in the following manner:

1. In claim 1 the limitations of claim 2 were inserted at the end of the claim;
2. Claim 1 was converted into the two-part form in accordance with Rule 6.3(b) PCT with those features known in combination from the prior art, specifically US A 5167516 Document D1, being placed in the preamble and with the remaining features being included in the characterising part;
3. Claim 2 was cancelled;
4. Claim 3 was renumbered as claim 2 and has been amended to depend from claim 1 rather than claim 2;

5. Claim 4 was renumbered as claim 3;
6. Claim 5 was renumbered as claim 4;
7. Claim 6 was renumbered as claim 5;
8. Claim 7 was renumbered as claim 6; and
9. Claims 8 through 10 inclusive were cancelled.

In view of the above amendments and remarks, the applicants respectfully request that the IPEA provide a well reasoned second written opinion under rule 66..

Respectfully submitted,

MOLEX INCORPORATED



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Stephen Z. Weiss  
Agent for Applicant

## CLAIMS:

1. An electrical connector (10), comprising:

a dielectric housing (12) having a receptacle (24) for receiving a complementary mating connector (62);

a plurality of conductive terminals (40) mounted on the housing and having contact portions (40a) exposed in the receptacle for engaging appropriate contacts (66) of the mating connector;

a metal shell (14) about at least a portion of the housing;

a shutter plate (32) movably mounted on the housing for movement between a closed position substantially closing said receptacle to prevent inadvertent engagement of foreign objects with the contact portions of the terminals and an open position allowing mating of said complementary mating connector, at least a portion (50) of the shutter plate being conductive to dissipate static electricity at the receptacle; and

at least one spring (30) mounted on the housing for biasing the shutter plate toward its closed position, the spring being conductive and electrically coupled between the conductive portion of the shutter plate and the metal shell to ground the plate to the shell;

characterised in that

said spring comprises a coil spring (30) having opposite ends (30b,30c) maintained in engagement with the conductive portion (50) of the shutter plate and the metal shell (14).

2. The electrical connector of claim 1 wherein said shutter plate (32) is elongated, and including a pair of said coil springs (30) located at opposite ends of the elongated shutter plate.

3. The electrical connector of claim 1 wherein said shutter plate (32) includes a dielectric core (48) and said conductive portion of the shutter plate comprises a metal cover (50) over at least part of the dielectric core.

4. The electrical connector of claim 4 wherein said dielectric core (48) of the shutter plate includes an inside face (48a) which faces the contact portions (40a) of the terminals (40).

5. The electrical connector of claim 1 wherein at least one of said terminals is provided as a ground terminal (40A) and is in engagement with the conductive portion (50) of the shutter plate, thereby coupling the ground terminal, via the conductive spring (30), to the metal shell (14).

6. The electrical connector of claim 6 wherein said conductive portion (50) of the shutter plate (32) includes a foot (54) extending into engagement with said at least one ground terminal (40A).